

Application No. 10/025,742
Reply to Office Action of June 18, 2004

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REMARKS

In the Office Action of June 18, 2004, Examiner objected to claims 1, 4, 7 and 8 on the basis of cited informalities and rejected claims 1-12 under 35 U.S.C. 102(b) as being unpatentable over by U.S. Patent no. 6,141,326 to Minami ("Minami"). Examiner also made a provisional rejection of claims 1-5 and 7-12 under the judicially created doctrine of double patenting over claims 1-5 and 10-15 of co-pending application no. 10/025,741.

In the present response, claims 1-5 and 7-11 are amended; claims 6 and 12 are cancelled; and claims 13-20 are added herein.

To traverse Examiner's objections of claims 1, 4, 7 and 8 the following claim amendments are provided herein. Claim 1 is amended to remove the phrase "adapted to" and a grammatical error is also corrected. Claims 2-3, 6 and 8-9 are amended to correct antecedent issues and to conform with amendments made to claim 1. Claim 4 is also amended to remove the phrase "adapted to" and to correct antecedent issues. Claims 7 and 10 are also amended to remove the phrase of "adapted to" therein. Finally, claim 8 is amended to depend from claim 7, rather than claim 10.

To traverse Examiner's rejection of claims 1-12 under 35 U.S.C. 102(b), Applicant notes that independent claims 1 and 7 are directed to identifying a failure location in a datapath in a communication element. Amongst other things, claims 1 and 7 define the use of a diagnostic cell which, in conjunction with a diagnostic cell counter, is inserted into an active datastream. The transmission of the diagnostic cell is tracked as it progresses through a datapath of the datastream in the communication element. The diagnostic cell counter is analyzed to identify a failure location in the datapath. The use of the diagnostic cell imposes no significant disruption to the flow of normal data traffic. No new subject matter is added by the amendments. Exemplary support for such claims is found in Fig. 4a and its related description at page 14, line 5 to page 17, line 4 and in Fig. 5a and its related description at page 20, line 17 to page 22, line 3.

Meanwhile, Minami only teaches the counting of cells of ordinary data traffic passing through particular network components and comparing the "passing cell count"

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at the components to determine that a fault exists where the passing cell counts differ by an amount greater than a pre-determined threshold value. For example, when normal data traffic is traversing a network component, Minami states at column 8, lines 9 to 16, that "...analysis includes checking for any difference in passing cell count over each connection between one cell traversing unit and its neighboring cell traversing unit and, if a difference is found, judging that cell loss has occurred in a unit downstream in terms of cell flow. In a case where the cell loss rate is greater than a threshold value TH, it is judged that a fault has occurred..." Minami also discusses, at column 10, lines 1 to 40, use of a diagnostic mode to conduct further passing cell count tests to confirm that a network component (a "suspect equipment") is experiencing a fault after a fault is judged to have occurred on the basis of differences in passing cell count. However, this diagnostic mode is conducted offline when the network component is not carrying normal traffic data, see for example column 10, lines 10 to 23: "After the changeover from the active unit to the standby unit, the processor 106 subjects the former active unit (the suspect equipment) to diagnosis and testing", and lines 25 to 26: "...the processor starts diagnostic control following the active/standby changeover".

As such, Minami teaches observation of data carrying traffic over a network element or the traffic of cells over an offline network element to judge the occurrence of faults. Meanwhile, Applicant's claims 1 and 7 are directed to the use of a specialized diagnostic cell to identify a failure location in a component along a datapath. This feature of inserting a specialized diagnostic cell into a communication element carrying normal traffic data is not taught or suggested by Minami. Claims 1 and 7 are hereby amended to further highlight this feature of inserting a diagnostic cell. As such, Applicant respectfully submits that claims 1 and 7 are patentable over Minami. Since claims 2-5 and 8-11 depend from claims 1 and 7, such other claims are likewise are patentable over Minami.

Next, in regards to the provisional rejection of claims 1-5 and 7-12, Applicant submits that there are separate patentable distinctions between such claims identified by Examiner and the subject matter of the co-pending application, in particular in relation to the nature of the datapaths being monitored. As such, Applicant traverses the provisional

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rejection. However, Applicant reserves the right to provide further argument in this respect or to file a terminal disclaimer without prejudice at such a time that the provisional rejection is made non-provisional.

New Claims

Applicant herein adds new claims 13-20.

New claims 13 and 14 ultimately depend from claim 1 and define extraction and transmission timing aspects of the diagnostic cell. Exemplary support for the claims is found at Fig. 4B and the specification at page 17, line 5 to page 18, line 16.

It is submitted that Minami also does not teach the specific aspects of removing a diagnostic cell or timing the transmission of a diagnostic cell which is separate from the normal cell traffic. As such, Applicant submits that claims 13 and 14 are novel and non-obvious in view of Minami.

New claims 15-20 relate to a method for identifying a failure in a datapath. No new matter has been added by the present amendment. Exemplary support for such claims is found in Fig. 4a and its related description at page 14, line 10 to page 17, line 4 and in Fig. 5a and its related description at page 20, line 17 to page 22, line 3.

Applicant submits that new claims 15-20 are also novel and non-obvious in view of Minami, as it only teaches the observation of data carrying traffic over a network element or the traffic of cells over an offline network element to judge the occurrence of faults. Meanwhile, claims 15-20 are directed to the use of a specialized diagnostic cell in a normal cell stream to identify a failure location in a component along a datapath. This feature of inserting a specialized diagnostic cell into a communication element carrying normal traffic data is not taught or suggested by Minami.

Applicant believes that no claim fee is payable; however, Commissioner is authorized to charge Agent's deposit account no. 15-0663 for any such fees deemed payable.

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Closing Comments

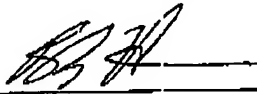
Applicant believes that the two-month petition of time filed with this response is sufficient for timely filing of this response. However, if any further extension of time is required, Applicant hereby petitions for a sufficient extension and authorizes Commissioner to charge any related extension fees, or any other required fees, to Agent's deposit account no. 15-0633.

In view of each of the amendments and comments herein, Applicant submits that the claims as provided herein are novel and non-obvious, such that the claims and the application are in condition for allowance. Applicant earnestly solicits that this application be permitted to proceed to allowance. The Examiner is invited to contact the undersigned by telephone to discuss this case further, if necessary.

Respectfully submitted

November 18, 2004

Date


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